

TITLE OF THE INVENTION  
REMUNERATION CALCULATING METHOD, REMUNERATION  
CALCULATING APPARATUS,  
AND COMPUTER MEMORY PRODUCT

5

BACKGROUND OF THE INVENTION

The present invention relates to a remuneration calculating method for calculating remuneration of workers who have made a labor agreement with an enterprise entity, a remuneration  
10 calculating apparatus adopting this method and a computer memory product on which a computer program for implementing this apparatus is recorded, and more particularly relates to a remuneration calculating method, a remuneration calculating apparatus and a computer memory product which are capable of  
15 calculating appropriate remuneration for each worker irrespective of the contents of work.

In Japan, a conventional seniority system, i.e., a system in which each worker's position and remuneration are determined according to his or her age and length of service, has begun to  
20 collapse, and the social structure is changing toward a merit system and a result-oriented system in which workers' remuneration is determined according to their merits and results achieved by them.

However, for introduction of the result-oriented system, enterprise entities face a problem that they must establish a  
25 method for correctly and fairly appraising the results of labor of

workers.

For example, it is easy to appraise work such as sales work that is directly connected to profits, but it is difficult to appraise clerical work such as work related to general affairs and accounting which are not directly connected to profits, and further it is almost impossible to appraise work such as research work and planning work whose results will be known in the future. Thus, in the actual situation, work is not fairly appraised between different types of jobs.

- Moreover, since the merit system and result-oriented system appraise workers irrespective of the overall operating performance of an enterprise entity and the general economic conditions of the society, they may cause an extraordinary rise or lowering of personnel expenses and may further cause a problem in some case that they tighten the management of the enterprise entity itself.

Additionally, there is a problem for the workers that a very large difference between the maximum and minimum remuneration may cause instability in the life of workers.

- Besides, there is a problem which must be solved to allow the workers to efficiently work and design their life that the workers must be made able to grasp their labor value, estimate remuneration to be received and connect them to designing of their future life.

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The present invention was invented in view of the above situations, and a principle object of the present invention is to provide a remuneration calculating method which adopts the result-oriented system by using a technique of dividing work into

5 job units, setting a base appraisal point for each job unit and giving whole or some amount of the base appraisal point as an appraisal point to each worker according to the accomplishment status of the job unit, and which calculates remuneration of the worker according to the overall operating performance of an enterprise entity and the

10 accomplishment status of a corresponding job by not simply converting the appraisal point to remuneration but converting the appraisal point to a monetary value by multiplying the appraisal point by a conversion rate that is determined according to the operating performance of the enterprise entity. It is also an object

15 of the present invention to provide a remuneration calculating apparatus adopting such a method, and a computer memory product on which a program for realizing the calculation of remuneration is recorded.

Another object is to provide a remuneration calculating

20 method and so on, capable of fairly appraising different types of work by setting a base appraisal point for sales work based on an operation value representing the results of labor, setting a base appraisal point for work related to general affairs based on expenses needed for the operation, and setting a base appraisal

25 point for research work by assuming an operation value in the

Still another object is to provide a remuneration calculating method and so on, capable of adjusting remuneration, such as a salary to be paid according to the result of work, by taking a monetary value to be paid to each worker in the future, such as retirement allowance, to be a monetary value for adjustment and increasing or decreasing the monetary value for adjustment, and thereby limiting an excessive increase and decrease of remuneration and stabilizing the workers' life.

A remuneration calculating method of the first invention is a remuneration calculating method for calculating remuneration of workers who have made a labor agreement with an enterprise entity, comprising the steps of dividing work into job units to be executed by one or a plurality of persons; setting a base appraisal point for quantitatively appraising each of the job units; giving each worker an appraisal point which represents whole or some amount of a base appraisal point set for each job unit, according to an accomplishment status of the job unit; determining a conversion rate for converting an appraisal point to a monetary value; and

calculating remuneration of each worker by converting an appraisal point given to the worker based on the conversion rate.

According to the remuneration calculating method of the first invention, work is divided into job units and an appraisal point is given to a worker according to an accomplishment status of a corresponding job unit, thereby enabling appraisal of the contents and results of work of the worker for each job unit. Moreover, remuneration is calculated by multiplying the given appraisal point by a conversion rate determined according the operating

performance of the enterprise entity. Therefore, for example, by decreasing the conversion rate when the operating performance of the enterprise entity became worth, or by increasing the conversion rate when the operating performance was improved, the operating performance of the enterprise entity can be reflected on

remuneration, and by further introducing a system of changing the conversion rate at short-period intervals, the operating performance is reflected on remuneration in a short period. Thus, the workers' will to work is heightened and the enterprise entity can run sound business.

The second invention is based on the remuneration calculating method of the first invention and further comprises the steps of: calculating expenses including remuneration of the worker, which were needed for accomplishing the job unit; calculating a monetary value of the accomplished job unit; and creating a profit and loss statement of the worker to the enterprise entity for a

predetermined term, based on the calculated expenses and monetary value.

In the remuneration calculating method according to the second invention, since a profit and loss statement of the worker to  
5 the enterprise entity is created, the worker can grasp his or her labor value and estimate remuneration to be obtained.

The third invention is based on the remuneration calculating method of the first or second invention and further comprises the step of accepting input of the job unit and base appraisal point  
10 which were proposed by the worker and approved by an approver appointed beforehand.

In the remuneration calculating method according to the third invention, by letting the worker set an operation value and a base appraisal point and a third party such as a personnel-resource  
15 appraising section or an external appraising center approve them, the monetary value and appraisal criteria can be made clear and the worker can have independence.

The fourth invention is based on the remuneration calculating method of any one of the first through third inventions  
20 and further comprise the step of accepting input of the base appraisal point which was set based on a present operation value representing an operation value at present and/or expenses needed for the operation.

In the remuneration calculating method according to the  
25 fourth invention, for example, a base appraisal point for work such

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as sales work which is directly connected to profits is set based on the present operation value representing the results of labor, and a base appraisal point for clerical work, such as work related to general affairs and accounting, which is not directly connected to profits is set based on how the expenses needed for the work or personnel expenses in some case are limited as compared to other company or a model employee. Accordingly, it is possible to fairly appraise different types of work.

The fifth invention is based on the remuneration calculating method of any one of the first through third inventions and further comprises the step of assuming an operation value at a specific time point in the future as a future operation value, converting the assumed future operation value to a present operation value representing an operation value at present, and accepting input of the base appraisal point which was set based on the present operation value.

In the remuneration calculating method of the fifth invention, a base appraisal point for work, such as research work and planning work, whose results will be known in the future is set by assuming an operation value at a specific time point in the future, adding factors, such as the development period, success probability and a discount rate, and converting the resultant value to a present operation value. Accordingly, it is possible to fairly appraise different types of work.

The sixth invention is based on the remuneration calculating

method of any one of the first through fifth inventions and further comprises the steps of: calculating an interim remuneration from the conversion rate and appraisal point; comparing the calculated interim remuneration and a first predetermined value; deducting a monetary value for adjustment which has been prepared, if the calculated interim remuneration is lower than the first predetermined value; calculating remuneration of the worker by adding the deducted value to the interim remuneration; comparing the calculated interim remuneration and a second predetermined value which is not lower than the first predetermined value; increasing the monetary value for adjustment, if the calculated interim remuneration is higher than the second predetermined value; and calculating remuneration of the worker by deducting the increased value from the interim remuneration.

15 In the remuneration calculating method according to the sixth invention, monetary values which are not directly connected to work at the present time, including monetary values such as retirement allowance to be paid to the workers in the future and monetary values such as allowance given to the workers according to the qualification and positions of the workers by just being employees of the enterprise entity, are taken to be a monetary value for adjustment. Further, if an interim remuneration calculated primarily is less than the first predetermined value set as a minimum remuneration, the shortage is covered by the monetary value for adjustment, and, if the interim remuneration is not less



than the second predetermined value, the monetary value for adjustment is increased. Accordingly, it is possible to limit an excessive increase and decrease of remuneration and stabilize the workers' life.

5 Furthermore, when the monetary value for adjustment is considered as funds to be used by the enterprise entity as a whole, by taking a part of remuneration of excellent workers or workers executing work that directly produces profits in the form of so-called  
10 aids or the like and by allocating the taken amount to workers who can not carry out sufficient work, such as newly hired employees, or workers who execute work that does not directly produce profits according to a need, it is possible to keep the balance of remuneration between the workers.

The seventh invention is the remuneration calculating  
15 method of the sixth invention and further comprises the steps of: calculating a debt-credit relationship between the enterprise entity and the worker; and creating a balance sheet of the worker to the enterprise entity after adjusting the calculated debt-credit relationship by using the monetary value for adjustment.

20 In the remuneration calculating method according to the seventh invention, a profit and loss statement is created by regarding deposits and savings, such as an employee deposit, and marketable securities, such as corporation's own stocks, as current assets, regarding asset accumulation savings, right for retirement  
25 allowance and the market values of investment marketable

securities as fixed assets, regarding a short-term loan from the enterprise entity to the worker as a current liability, regarding a long-term debt such as a housing loan as a fixed liability, and further setting various types of monetary values for adjustment.

- 5 Accordingly, the worker can grasp his or her labor value and connect it to designing of his or her life.

The eighth invention is a remuneration calculating apparatus for calculating remuneration of workers who have made a labor agreement with an enterprise entity, comprising: means for  
10 accessing a work database in which information about work is recorded in conjunction with an appraisal point indicating an appraised value of work; means for accessing an operating-performance database in which information about operating performance of the enterprise entity is recorded in  
15 conjunction with a conversion rate for converting an appraised point to a monetary value; means for accepting input of a job unit given by dividing work, a base appraisal point set for the job unit, and worker's information indicating a worker assigned the job unit; means for recording the accepted job unit, base appraisal point and  
20 worker's information in conjunction with each other in said work database; means for accepting input of an accomplishment status value indicating an accomplishment status of the job unit; means for calculating an appraisal point based on the accepted accomplishment status value and base appraisal point; means for  
25 recording the calculated appraisal point in conjunction with the

worker's information in said work database; means for determining  
a conversion rate based on the information recorded in said  
operating-performance database; and calculating means for  
calculating remuneration of the worker based on the conversion  
5 rate and appraisal point.

In the remuneration calculating apparatus according to the  
eighth invention, work is divided into job units and an appraisal  
point is given to a worker according to an accomplishment status of  
a corresponding job unit, thereby enabling appraisal of the contents  
10 and results of the work of the worker for each job unit. Moreover,  
remuneration is calculated by multiplying the given appraisal point  
by a conversion rate determined according the operating  
performance of the enterprise entity. Therefore, for example, by  
decreasing the conversion rate when the operating performance of  
15 the enterprise entity became worth, or by increasing the conversion  
rate when the operating performance was improved, the operating  
performance of the enterprise entity can be reflected on  
remuneration, and by further introducing a system of changing the  
conversion rate at short-period intervals, the operating performance  
20 is reflected on remuneration in a short period. Accordingly, the  
workers' will to work is heightened and the enterprise entity can  
run sound business.

The ninth invention is based on the remuneration  
calculating apparatus of the eighth invention and further  
25 comprises: means for calculating expense information indicating

expenses needed for accomplishing the job unit; means for calculating a monetary value resulting from accomplishment of the job unit; and means for creating a profit and loss statement of the worker to the enterprise entity based on the calculated expense

5 information and monetary value.

In the remuneration calculating apparatus according to the ninth invention, since a profit and loss statement of the worker to the enterprise entity is created, the worker can grasp his or her labor value and estimate remuneration to be obtained.

10 The tenth invention is based on the remuneration calculating apparatus of the eighth or ninth invention and further comprises: means for accepting input of a future operation value representing an operation value at a specific time point in the future; means for converting the accepted future operation value to  
15 a present operation value representing an operation value at present; and means for setting a base appraisal point based on the present operation value.

In the remuneration calculating apparatus according to the tenth invention, a base appraisal point for work, such as research  
20 work and planning work, whose results will be known in the future is set by assuming an operation value at a specific time point in the future, adding factors such as the development period and success probability, and converting the resultant value to a present operation value. Accordingly, it is possible to fairly appraise  
25 different types of work.

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The eleventh invention is the remuneration calculating apparatus of any one of the eighth through tenth inventions and further comprises: means for accessing a debt and credit database in which a debt-credit relationship between the enterprise entity  
5 and the worker, including a monetary value for adjustment for adjusting remuneration, is recorded; means for calculating an interim remuneration from the conversion rate and appraisal point; means for deducting the monetary value for adjustment recorded in said debt and credit database, if the interim remuneration is lower  
10 than a first predetermined value; and means for increasing the monetary value for adjustment recorded in said debt and credit database, if the interim remuneration is higher than a second predetermined value which is not lower than the first predetermined value, wherein, when the monetary value for  
15 adjustment was deducted, said calculating means calculates remuneration of the worker by adding a deducted value to the interim remuneration, and, when the monetary value for adjustment was increased, said calculating means calculates remuneration of the worker by deducting an increased value from  
20 the interim remuneration.

In the remuneration calculating apparatus according to the eleventh invention, monetary values which are not directly connected to work at the present time, including monetary values such as retirement allowance to be paid to the workers in the future  
25 and monetary values given as allowance to workers according to the

qualification and positions of the workers by just being employees of the enterprise entity, are taken to be a monetary value for adjustment. Further, if an interim remuneration calculated primarily is less than the first predetermined value, the shortage is covered by the monetary value for adjustment, and, if the interim remuneration is not less than the second predetermined value, the monetary value for adjustment is increased. Accordingly, it is possible to limit an excessive increase and decrease of remuneration and stabilize the workers' life.

Furthermore, when the monetary value for adjustment is considered as funds to be used by the enterprise entity as a whole, by taking a part of remuneration of excellent workers or workers executing work that directly produces profits in the form of so-called aids or the like and by allocating the taken amount to workers who can not carry out sufficient work, such as newly hired employees, or workers who execute work which does not directly produce profits according to a need, it is possible to keep the balance of remuneration between the workers.

The twelfth invention is based on the remuneration calculating apparatus of the tenth invention and further comprises: means for creating a balance sheet of the worker to the enterprise entity, after adjusting the debt-credit relationship recorded in said debt and credit database by using the monetary value for adjustment.

In the remuneration calculating apparatus according to the

twelfth invention, a profit and loss statement is created by regarding deposits and savings, such as an employee deposit, and marketable securities, such as corporation's own stocks, as current assets, regarding asset accumulation savings, right for retirement allowance and investment marketable securities as fixed assets, regarding a short-term loan from the enterprise entity to the worker as a current liability, regarding a long-term debt such as a housing loan as a fixed liability, and further setting various types of monetary values for adjustment. Accordingly, the worker can grasp his or her labor value and connect it to designing of his or her life.

A computer-readable computer memory product according to the thirteenth invention, including: program code means for causing a computer to accept input of a job unit given by dividing work, a base appraisal point set for the job unit, and worker's information indicating a worker assigned the job unit; program code means for causing a computer to record the accepted job unit, base appraisal point and worker's information in conjunction with each other; program code means for causing a computer to accept input of an accomplishment status value indicating an accomplishment status of the job unit; program code means for causing a computer to calculate an appraisal point indicating an appraised value of work based on the accepted accomplishment status value and base appraisal point; program code means for causing a computer to determine a conversion rate for converting the appraisal point to a

monetary value; and program code means for causing a computer to calculate remuneration of the worker based on the conversion rate and appraisal point.

With the computer-readable computer memory product  
5 according to the thirteenth invention, by executing the recorded program with a general-purpose computer such as a server computer, the general-purpose computer operates as a remuneration calculating apparatus as mentioned above.

The above and further objects and features of the invention  
10 will more fully be apparent from the following detailed description with accompanying drawings.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

15 FIG. 1 is an explanatory view showing the concept of a remuneration calculating method of the present invention;

FIG. 2 is a block diagram showing the structure of a system using a remuneration calculating apparatus of the present invention;

20 FIG. 3 is an explanatory view showing the concept of a computer memory product on which a computer program for implementing the remuneration calculating apparatus of the present invention is recorded;

FIG. 4 is a flowchart showing a base appraisal point setting  
25 method included in the remuneration calculating method of the



present invention;

FIG. 5 is a flowchart showing a present-operation-value setting method included in the remuneration calculating method of the present invention;

5        FIG. 6 is a flowchart showing the base appraisal point setting processes performed in the remuneration calculating apparatus of the present invention;

FIG. 7 is a flowchart showing the present-operation-value setting processes performed in the remuneration calculating  
10    apparatus of the present invention;

FIG. 8A and FIG. 8B are flowcharts showing the job unit and base appraisal point setting processes performed in a remuneration calculating apparatus and a terminal unit for use with the remuneration calculating method of the present invention;

15        FIG. 9A and FIG. 9B are flowcharts showing the remuneration calculating processes performed in the remuneration calculating apparatus of the present invention;

FIG. 10 is a flowchart showing the profit and loss statement creating processes performed in the remuneration calculating  
20    apparatus of the present invention;

FIG. 11 is an explanatory view showing a profit and loss statement outputted by the remuneration calculating apparatus of the present invention;

FIG. 12 is a flowchart showing the balance sheet creating  
25    processes performed in the remuneration calculating apparatus of

the present invention; and

FIG. 13 is an explanatory view showing a balance sheet outputted by the remuneration calculating apparatus of the present invention.

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## DETAILED DESCRIPTION OF THE INVENTION

The following description will explain the present invention in detail with reference to the drawings illustrating embodiments thereof.

10        FIG. 1 is an explanatory view showing the concept of a remuneration calculating method of the present invention, FIG. 2 is a block diagram showing the structure of a system using the remuneration calculating apparatus of the present invention, and FIG. 3 is an explanatory view showing the concept of a computer  
15        memory product on which a computer program for implementing the remuneration calculating apparatus of the present invention is recorded.

Numeral 10 in these drawings represents the remuneration calculating apparatus of the present invention using a server  
20        computer, the remuneration calculating apparatus 10 is managed by an enterprise entity 100, the enterprise entity 100 has made a labor agreement with workers 200, and the workers 200 operate terminal unites 20 for communicating with the remuneration calculating apparatus 10 through a communication network NW  
25        such as a LAN.

Alternatively, it is also possible that the remuneration calculating apparatus 10 is managed by other service enterprise entity who has made a contract with the enterprise entity 100 to calculate remuneration for the enterprise entity 100, and the labor agreement between the enterprise entity 100 and the workers 200 is not necessarily a labor agreement for regular employment and may be a labor agreement for periodical employment such as employment as part-time or casual employees. Further, the workers 200 are not necessarily natural persons and may be entities such as contractors and various types of organizations, and the enterprise entity 100 may be an organization performing business activities in a wide sense, such as a private enterprise and a local public entity.

In addition, it is possible to use a portable computer such as a cellular phone and PDA (Personal Digital Assistants) as the terminal unit 20 and access the remuneration calculating apparatus 10 from a destination of a business trip so as to have reference information for executing work at the destination of the business trip.

The remuneration calculating apparatus 10 comprises an auxiliary storage 12 such as a CD-ROM drive for reading information such as a program and data from a computer memory product 30 such as a CD-ROM on which information such as a program and data for use with the remuneration calculating apparatus of the present invention shown in FIG. 3 are recorded;

and a recording unit 13 such as a hard disk on which the information such as a program and data read by the auxiliary storage 12 is to be recorded.

The server computer acts as the remuneration calculating  
5 apparatus 10 of the present invention by reading the information such as a program and data from the recording unit 13, storing it in a main storage 14 for storing information, and executing the information by a CPU 11.

It is also possible to connect the remuneration calculating  
10 apparatus 10 to a communication apparatus 41 that is managed by an external communication enterprise entity such as an ASP (Application Service Provider) through the communication network NW and a communication unit 40 such as a router, to download the information such as a program and data of the present invention  
15 recorded on a computer memory product 42 of the present invention, which is used in the communication apparatus 41, by transferring the information through a transfer medium such as a communication line, a repeater and a carrier wave, and to store the information in the recording unit 13.

Moreover, a part of the recording area of the recording unit  
20 13 is used as various types of databases such as a work database (DB) 10a for recording work in conjunction with an appraisal point indicating an appraised value of the work, an operating performance database (DB) 10b for recording information  
25 about the operating performance of the enterprise entity 100 in

conjunction with a conversion rate for converting an appraisal point to a monetary value, a remuneration database (DB) 10c for recording information about remuneration of each worker 200, a profit and loss database (DB) 10d for recording the expenses needed  
 5 for the work of the worker 200 and the results of the work, and a debt and credit database (DB) 10e for recording a debt-credit relationship between the enterprise entity 100 and the worker 200, and these various types of databases are accessed, if necessary, to record/read the information.

10 Note that, instead of using a part of the recording area of the recording unit 13 as various types of databases, it is possible to connect other device comprising a recording unit to the remuneration calculating apparatus 10 and use the recording unit as various types of databases.

15 Besides, the remuneration calculating apparatus 10 comprises an input unit 15 such as a mouse and a keyboard; an output unit 16 such as a monitor and a printer; and a communication unit 17 to be connected to the communication network NW.

20 Alternatively, instead of performing input and output operations using the input unit 15 and output unit 16, the terminal unit 20 connected to the remuneration calculating apparatus 10 may be used as an input unit and an output unit for performing input and output operations with respect to the remuneration  
 25 calculating apparatus 10.

The terminal unit 20 comprises a CPU 21, a recording unit 22, a main storage 23, an input unit 24, an output unit 25 and a communication unit 26.

Next, referring to the flowchart shown in FIG. 4, the following description will explain the base appraisal point setting method included in the remuneration calculating method of the present invention.

First, the contents of various types of work of the enterprise entity 100 are analyzed and divided into job units (S101), the contents of each of the job units, such as a monetary value, execution period and job classification, are determined (S102), a base appraisal point for appraising the monetary value of the job in relative quantity is set for the job unit (S103), and the job unit and the base appraisal point are assigned to one or a plurality of workers 200 who execute the job unit (S104).

Here, the job units aim for facilitating calculation of monetary values by dividing work into smaller units; and the smaller the job unit, the clearer the contents of the job unit, and the larger the job unit, the more easily the remuneration is calculated. It is therefore possible to arbitrarily set job units according to the contents of the operations and scale of the enterprise entity 100 who employs the remuneration calculating method of the present invention. Note that in the sense of dividing work into minimum functioning units, the job units may be referred to as the "job cells".

Farther, one job unit may be assigned to one worker 200 or

to a plurality of workers 200, and usually one worker 200 is assigned a plurality of job units.

The job classification refers to classification of various types of work, such as sales work, clerical work and research work, and a method of calculating a monetary value is set for each job classification.

For example, a base appraisal point for work, such as sales work, which is directly connected to profits is set based on a present operation value indicating the operation value at present, a base appraisal point for clerical work, such as work related to general affairs and accounting, which is not directly connected to profits is set based on how the expenses needed for the work or personnel expenses in some case are limited as compared to other company or a model worker.

Here, the profits do not mean profits in a narrow sense, such as ordinary profit and gross profit, but refer to profits in a wide sense, such as a sales amount, non-operating profit and extraordinary profit, which can be made clear in monetary values, and a value obtained by allotting the overall profit to each job unit is set as a base appraisal point.

Further, for work such as research work and planning work whose work results will be known in the future, as shown in the flowchart of FIG. 5 illustrating the present-operation-value setting method included in the remuneration calculating method of the present invention, an operation value at a specific time point in the

future is assumed as a future operation value (S201), factors such as the development period and success probability for the operation are added and then the resultant value is converted to a present operation value (S202), and a base appraisal point is set based on  
5 the resultant present operation value (S203).

Although such a base appraisal point setting method is important processes in the remuneration calculating method of the present invention, as these processes need a great deal of labor, it is ideal to place an order to an external service agent, who performs  
10 remuneration calculation, to set a base appraisal point based on objective appraisal.

Next, referring to the flowchart shown in FIG. 6, the following description will explain the base appraisal point setting processes performed in the remuneration calculating apparatus 10  
15 of the present invention.

A person in charge of inputting of information in the enterprise entity 100 inputs various information, such as a job unit, a base appraisal point and worker's information indicating a worker 200 who is assigned the base appraisal point, which were set in  
20 steps S101 through S104, through the remuneration calculating apparatus 10 or the terminal unit 2.

The remuneration calculating apparatus 10 accepts the input of the job unit, base appraisal point and worker's information (S301), and records the accepted job unit, base appraisal point and  
25 worker's information in conjunction with each other in the work



database 10a (S302).

Next, referring to the flowchart shown in FIG. 7, the following description will explain the present-operation-value setting processes performed in the remuneration calculating

5 apparatus 10 of the present invention.

In the present-operation-value setting method shown in the flowchart of FIG. 5, calculation is usually performed by the remuneration calculating apparatus 10.

In other words, a person in charge of this task inputs the  
10 future operation value assumed in step S201 and the factor information, such as the development period and success probability, to the remuneration calculating apparatus 10.

The remuneration calculating apparatus 10 accepts the input of the future operation value and the factor information  
15 (S401), converts the future operation value to a present operation value based on the accepted future operation value and factor information (S402), sets a base appraisal point based on the present operation value (S403), and outputs the set base appraisal point (S404).

20 A person in charge of this task confirms the outputted base appraisal point and inputs it to the remuneration calculating apparatus 10, or it is also possible to arrange the base appraisal point set in step S403 to be processed automatically for the input accepting process shown in step S301.

25 Next, referring to the flowchart shown in FIG. 8A and FIG.

8B, the following description will explain the job unit and base appraisal point setting processes performed in the remuneration calculating apparatus 10 and the terminal unit 20 for use with the remuneration calculating method of the present invention.

5           The job unit and base appraisal point inputted in step S301 of FIG. 6 and the base appraisal point determined in step S403 of FIG. 7 are not necessarily determined by a certain worker and service agent appointed to perform the setting work or by the processes of the remuneration calculating apparatus 10, and may be  
10   proposed by a worker 200 himself or herself performing the work.

          In this case, however, it is also necessary to have an approval of the certain worker 200 or service agent appointed as an approver (hereinafter referred to as the "approver").

          For example, in the case where a worker 200 who has been  
15   appointed to perform the work operates a first terminal unit 20a and the approver operates a second terminal unit 20b, the worker 200 determines a job unit, which indicates the contents of the job unit of the work assigned to him or her or work proposed by the worker 200 himself or herself, and its base appraisal point, and  
20   inputs the determined job unit and base appraisal point into the first terminal unit 20a for proposal.

          The first terminal unit 20a accepts the input of the job unit and base appraisal point (S501), and transmits the accepted job unit and base appraisal point to the remuneration calculating apparatus  
25   10 (S502).



(S513), and outputs the received judgement result (S514).

The worker 200 confirms the judgement result, and reviews the work if the judgement result is "not approved".

Next, referring to the flowchart shown in FIG. 9A and FIG. 9B, the following description will explain the remuneration calculating processes performed in the remuneration calculating apparatus 10 of the present invention.

An appraiser who appraises the working progress of the worker 200 determines an accomplishment status value, which is given in numeric value such as 100%, 80%, 30% or the like, according to the accomplishment status of each job unit, and informs the value to the person in charge of inputting.

It should be noted that the appraiser and the person in charge of inputting may be the same person.

The remuneration calculating apparatus 10 accepts the input of the accomplishment status value (S601), calculates an appraisal point by multiplying the accepted accomplishment status value and base appraisal point together (S602), and records the calculated appraisal point in conjunction with the worker's information in the work database 10a (S603).

Then, the remuneration calculating apparatus 10 accesses the operating-performance database 10b and determines a conversion rate based on the operating performance of the enterprise entity 100 for the current term (S604), and calculates an interim remuneration by multiplying the appraisal point recorded

in the work database 10a and the determined conversion rate together (S605).

Thereafter, the remuneration calculating apparatus 10 compares the calculated interim remuneration with a first  
5 predetermined value indicating a minimum remuneration (S606), and if the interim remuneration is lower than the first predetermined value (S607: YES), then deducts a monetary value for adjustment recorded in the profit and loss database 10e by an amount equivalent to the difference between the interim  
10 remuneration and the first predetermined value (S608), adds the deducted amount to the interim remuneration (S609), and records the calculated result as remuneration in conjunction with the worker's information in the remuneration database 10c (S610).

As a result of the comparison in step S606, if the interim  
15 remuneration is higher than the first predetermined value (NO: S607), then the remuneration calculating apparatus 10 compares the interim remuneration with a second predetermined value which is set higher than the first predetermined value (S611). If the interim remuneration is higher than the second predetermined  
20 value (S612: YES), then the remuneration calculating apparatus 10 deducts the interim remuneration by multiplying the interim remuneration by a predetermined rate (S613), adds the deducted amount to the monetary value for adjustment recorded in the debt and credit database 10e (S614), and records the calculated result as  
25 remuneration in conjunction with the worker's information in the

remuneration database 10c (S610).

As a result of the comparison in step S611, if the interim remuneration is lower than the second predetermined value (NO: S612), then the remuneration calculating apparatus 10 records the  
5 interim remuneration as remuneration in conjunction with the worker's information in the remuneration database 10c (S610).

Note that it is not necessarily to perform the remuneration adjusting processes in steps S606 through S614, and these processes may be included in the contents of the agreement made  
10 between the enterprise entity 100 and the worker 200 according to a need. If the remuneration adjustment processes are not performed, it is possible to almost perfectly reflect the results of work executed by the worker 200 on his or her remuneration, so that remuneration can be managed at an individual's discretion. On the other hand, if  
15 a minimum remuneration is ensured by adjustment of remuneration, then it is possible to limit an excessive increase and decrease of remuneration, stabilize the life of the workers 200 and reduce unfair feelings between the workers 200.

Moreover, those which are used as the monetary value for  
20 adjustment are not limited to monetary values to be paid to the workers in the future, such as retirement allowance, and, for example, it is possible to set monetary values which are given as allowance to the workers 200 according to their qualification and position by just being employees of the enterprise entity 100 and  
25 use the monetary values as the monetary value for adjustment.

Further, in the case where the monetary value for adjustment is considered as funds to be used by the enterprise entity 100 as a whole, it is possible to include a part of sales (interim remuneration) of excellent workers 200 or workers 20 who execute work that directly produces profits in the form of so-called aids or the like to the enterprise entity 100, and allocate the amount to workers 200 who can not carry out sufficient work, such as newly hired employees, or workers 200 who execute work that does not directly produce profits to keep the balance of remuneration between the workers 200.

However, if the idea of allocating a part of the remuneration of excellent workers 200 to workers 200 who can not perform sufficient work is adopted, it is assumed that the excellent workers 200 deposit a monetary value in the enterprise entity 100 and the workers 200 who do not perform sufficient work borrow a monetary value from the enterprise entity 100, and such conditions need to be recorded in the debt and credit database 10e so as to make an adjustment for preventing a constant loss to the excellent workers 200.

Next, referring to the flowchart shown in FIG. 10, the following description will explain the profit and loss statement creating processes performed in the remuneration calculating apparatus 10 of the present invention.

When the worker 200 accomplishes work assigned as a job unit, the enterprise entity 100 gains an income and allocates the





input of the expense information (S701), extracts the remuneration information of preceding term showing the remuneration of the worker 200 for the preceding term from the remuneration database 10d (S702), and calculates expenses needed for accomplishing the  
5 job unit, based on the accepted expense information and the extracted remuneration information of preceding term (S703).

Then, the remuneration calculating apparatus 10 calculates a monetary value of the accomplished job unit (S704), creates a profit and loss statement of the worker 200 to the enterprise entity  
10 100 (S705), based on the expenses calculated in step S703 and the monetary value calculated in step S704, and outputs the created profit and loss statement (S706).

It should be noted that the expense information accepted in step S701 is not necessarily accepted whenever an expense is  
15 needed, and expenses recorded for each job unit in the profit and loss database 10d may be summed up and the calculated sum may be used as the expense information.

Here, the "preceding term" refers to a term just before a certain term regarded as the current term, and the present term is  
20 not always expressed as the current term.

Moreover, regarding the profit and loss statement created in the processes of steps S701 through S706, it is possible to create not only a profit and loss statement for the whole term but also a profit and loss statement for each job unit, and it is further possible to  
25 create a profit and loss statement for a job unit which is to be

performed from now by inputting estimated values for the accomplishment status value and expenses and use this statement as a reference for deciding whether this job is to be executed.

When the profit and loss statement for the whole term is to  
5 be created, the remuneration information of the preceding term  
extracted from the remuneration database 10d as shown in step  
S702 is used as it is for a part of expenses. In contrast, when a  
profit and loss statement is created for each job unit, the  
remuneration information of the preceding term is converted to a  
10 period needed for the job unit and expenses are calculated based on  
the converted remuneration information of the preceding term.

Moreover, for workers 200 whose remuneration of the  
preceding term is not recorded in the remuneration database 10c,  
such as newly hired employees and employees hired in mid-carrier,  
15 it is possible to create a profit and loss statement based on the  
expenses needed for each job unit and the interim remuneration  
(remuneration for a current term before adjusted) recorded in the  
profit and loss database 10d.

Note that the creation of a profit and loss statement based on  
20 the expenses for each job unit and the interim remuneration  
recorded in the profit and loss database 10d may be adopted not  
only for the workers 200 whose remuneration of the preceding term  
is not recorded in the remuneration database 10c, but also for  
creation of a profit and loss statement of each job unit based on  
25 estimated values.

Further, regarding the monetary value of an job to be calculated in step S704, it is possible to use various monetary values such as the remuneration of each job unit, the interim remuneration for the whole term and the adjusted remuneration.

5 In other words, it is possible to create a profit and loss statement by selecting an optimum monetary value (remuneration) and expenses according to the way of viewing the flow of monetary values between the enterprise entity 100 and the worker 200. Further, in some case, it is possible to submit a profit and loss  
10 statement created by each worker 200 as an index for self-appraisal in making a new labor agreement with other enterprise entity 100 and use this profit and loss statement as an index of objective market values of human resources.

FIG. 11 is an explanatory view showing a profit and loss  
15 statement outputted by the remuneration calculating apparatus 10 of the present invention.

In the profit and loss statement shown as an example in FIG. 11, the sales proceeds show a monetary value the enterprise entity 100 earned from the work of the worker 200, the cost of sales  
20 becomes the remuneration of the worker 200 for the preceding term, and the difference between the sales proceeds and the cost of sales is recorded as the gross profit.

It can be considered from the viewpoint of the enterprise entity 100 that the enterprise entity 100 gains the sales proceeds  
25 and the gross profit by payment of the remuneration of the worker

200 as an expense.

Besides, the selling and administrative expenses refer to expenses, such as travelling and lodging expenses, book and research expenses and reception expenses, and the operating profit  
5 is the difference between the gross profit and the selling and administrate expenses.

Further, the ordinary profit is the difference between the operating profit and the non-operating expenses, and the special loss, current-term profit before taxes and individual tax allocation  
10 are successively calculated from the ordinary profit so as to finally calculate the net profit for the current term.

Thus, by creating the current-term profit and loss statement of the worker 200 to the enterprise entity 100, it is possible to appraise the labor value of the worker 200.

15 Note that it is also possible to create and output a profit and loss statement for each job unit, so that the workers 200 can grasp their labor value for the corresponding job units.

Next, referring to the flowchart shown in FIG. 12, the following description will explain the balance sheet creating  
20 processes performed in the remuneration calculating apparatus 10 of the present invention.

When the worker 200 has a deposit and savings such as an employee deposit and asset accumulation savings and a debt such as a housing loan with respect to the enterprise entity 100, a  
25 debt-credit relationship is established between the worker 200 and

the enterprise entity 100, and this relationship can be expressed as a balance sheet of the worker 200 to the enterprise entity 100.

Such a balance sheet is created by extracting the debt-credit relationship of the worker 200 recorded in the debt and credit database 10e (S801), creating a balance sheet after adjusting numeric values in the extracted debt-credit relationship by using the monetary value for adjustment (S802), and outputting the created balance sheet (S803).

FIG. 13 is an explanatory view showing a balance sheet outputted by the remuneration calculating apparatus 10 of the present invention.

In the balance sheet shown in FIG. 13, the current assets are monetary values that can be converted to cash within one year, such as a cash deposit (employee deposit) and marketable securities (corporation's own stocks) in the enterprise entity 100.

The fixed assets are monetary values that can not be converted to cash within one year, such as asset accumulation savings in the enterprise entity 100, a retiring right representing retirement allowance to be paid to the worker 200 in the future and the market values of investment market securities called stock option that is offered at a special price by the corporation and can not be freely converted to cash.

Note that, when the retiring right is dealt as the monetary value for adjustment, this can not be converted to cash directly but may be paid as remuneration for adjustment in some case.

Further, the total assets given by summing up the current assets and the fixed assets are shown.

The current liability is a monetary value the worker 200 must pay the enterprise entity 100 within one year, for example, a short-term loan the worker 200 has borrowed from the enterprise entity 100.

The fixed liability shows a monetary value the worker 200 needs not to pay the enterprise entity 100 its whole amount within one year, for example, a long-term loan such as a housing loan the worker 200 has borrowed from the enterprise entity 100.

Employee capital and surplus funds are taken to be the net worth and they can be regarded as monetary values allocated to adjust the assets and capital, and it may be considered that an increase or decrease in the retiring right causes an increase or decrease in the employee capital and surplus funds taken as the monetary value for adjustment.

Accordingly, by creating the balance sheet of the worker 200 to the enterprise entity 100, the worker 200 can grasp his or her labor value and connect them to designing of stable life.

In the above-described embodiment, while a cycle of determining the conversion rate is not particularly specified, a cycle suitable for each enterprise entity 100 can be set individually by, for example, a fluctuating rate method of determining a conversion rate at intervals of a short period such as one month, a fixed rate method of using a single conversion rate for one or more years, or a

combination of the fluctuating rate method or the fixed rate method and a formula rate method of determining a conversion rate by a certain formula so that jobs, such as an job for developing a new product and new operation, which are important job units for the  
5 enterprise entity 100 but are hardly connected to the operating performance, are treated more favorably than expected in respect of the monetary values.

As described above, in the remuneration calculating method, remuneration calculating apparatus and computer memory product  
10 according to the present invention, work is divided into job units, a base appraisal point is set for each job unit, and all or part of the amount of the base appraisal point is given as an appraisal point to a worker according to the accomplishment status of the job unit. The contents and results of work performed by the worker can be  
15 appraised for each job unit, and remuneration is calculated by multiplying the given appraisal point by a conversion rate determined by the operating performance of an enterprise entity. Therefore, for example, by decreasing the conversion rate when the operating performance of the enterprise entity became worth, or by  
20 increasing the conversion rate when the operating performance was improved, the operating performance of the enterprise entity can be reflected on remuneration, and by further introducing a system of changing the conversion rate at short-period intervals, then the operating performance is reflected on remuneration in a short  
25 period. It is thus possible to produce excellent effects for both of

the workers and enterprise entity that the workers' will to work is heightened and the enterprise entity can run sound business.

Moreover, since a profit and loss statement and a balance sheet of the worker to the enterprise entity are created, the present invention produces excellent effects that the worker can grasp his or her own labor value, estimate remuneration to be obtained and connect them to designing of his or her life.

Furthermore, according to the present invention, a base appraisal point for work such as sales work which is directly connected to profits is set based on the present operation value representing the results of labor, a base appraisal point for clerical work, such as work related to general affairs and accounting, which is not directly connected to profits is set based on how the expenses needed for the work or personnel expenses in some case are limited as compared to other company or a model employee, and a base appraisal point for work, such as research work and planning work, whose results will be known in the future is set by assuming an operation value at a specific time point in the future, adding factors, such as the development period and success probability, and converting the resultant value to a present operation value. Accordingly, the present invention produces excellent effects that it is possible to fairly appraise different types of work.

Additionally, according to the present invention, monetary values which are not directly connected to work at the present time, including monetary values such as retirement allowance to be paid



to the workers in the future and monetary values given as allowance according to the qualification and positions of workers by just being employees of the enterprise entity, are taken to be a monetary value for adjustment, and, if an interim remuneration  
5 calculated primarily is less than a first predetermined value, the shortage is covered by the monetary value for adjustment, or, if the interim remuneration is not less than a second predetermined value, the monetary value for adjustment is increased. Accordingly, the present invention produces excellent effects that it is possible to  
10 limit an excessive increase and decrease of remuneration and stabilize the workers' life.

Furthermore, according to the present invention, when the monetary value for adjustment is considered as funds to be used by the enterprise entity as a whole, a part of remuneration of excellent  
15 workers or workers executing work that directly produces profits is taken in the form of so-called aids or the like, and the taken amount is allocated to workers who can not carry out sufficient work, such as newly hired employees, or workers who execute work which do not directly produce profits according to a need, thereby producing  
20 excellent effects that it is possible to keep the balance of remuneration between the workers.

As this invention may be implemented in several forms without departing from the spirit of essential characteristics thereof, the present embodiments are therefore illustrative and not  
25 restrictive, since the scope of the invention is defined by the

appended claims rather than by the description preceding them, and all changes that fall within metes and bounds of the claims, or equivalence of such metes and bounds thereof are therefore intended to be embraced by the claims.